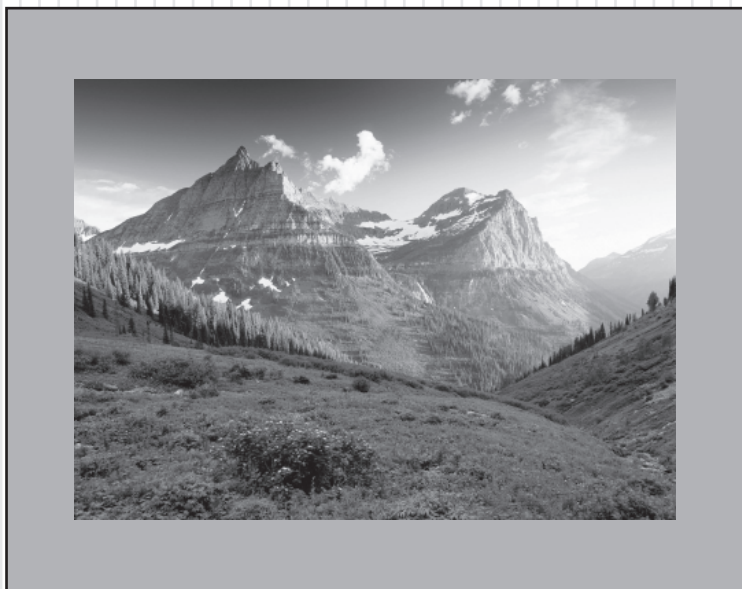


Montana
Comprehensive Assessment
System (MontCAS, Phase 2)
Criterion-Referenced Test (CRT)

COMMON CONSTRUCTED-RESPONSE ITEM RELEASE
READING, GRADE 4

2006



OFFICE OF PUBLIC INSTRUCTION

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Reading

Session 1

Read this article about crayons and then answer the questions that follow.

Making the World a More Colorful Place

by Danielle S. Hammelef

Here's a riddle for you: what's black, brown, blue, red, purple, orange, yellow, and green? The colors in the first box of crayons sold in 1903 for five cents!

For over one hundred years, crayons have made the world a more colorful place. In the 1800s, the first crayonlike drawing materials were thick, clumsy chunks of charcoal and oil. Colors later replaced the black charcoal in these early crayons, and wax replaced the oil to make them sturdier and easier to handle. But these crayons weren't made for children—they were made for marking crates and barrels and were poisonous if eaten.

Around 1900, Edwin Binney and C. Harold Smith, founders of a company that made school slate pencils and the first dustless chalk, researched ways of making safe, kid-friendly crayons. They invented a way to mix pigments and wax together to make different colors and to shape the mixture into smaller, sturdy, nontoxic crayons. In 1903, Binney and Smith sold the first box of crayons, changing the way kids colored overnight.

Crayons are made of pigment and wax called paraffin. Paraffin is like the wax used to make the candles on your birthday cake. Pigment is a substance that gives something its color, like the food coloring used to make blue, red, or yellow frosting for your birthday cake.

Red, yellow, and blue pigments are made with water and chemicals at a place called



An original 1903 box of crayons

a color mill. These three colors are mixed together to make lots of different colors, such as orange, pink, and green. Each color is passed through a filter press which, like an apple press at a cider mill, squeezes the color solution to get out the extra water. What's left looks like colored cakes. These cakes are then baked in special ovens called kilns for three to four days. (Imagine how hard your birthday cake would be if it were baked for that long!) After they are dry, the hard cakes are sent to a pulverizing machine, which breaks them up into fine powder. The powder is packed into bags and shipped to the crayon factory.

At the crayon factory, hot, clear liquid wax waits for color in towers that are 26 feet

high. (You'd have to stack about 78 birthday cakes to reach the top of those towers.) The wax is pumped through large pipes into mixing vats. Mixing vats are like the bowls and mixer used to stir your cake batter, only much bigger. Pigments are added to the wax in the mixing vats to color it.

The colored wax is then poured into molds with thousands of crayon-shaped holes. The wax is cooled by cold water passed through the molds. It takes about four to seven minutes for the wax to harden. The extra wax on top of the molds is scraped off and placed back into the mixing vat to be melted again to make more crayons.

Rods inside of the holes pop the crayons out into inspection bins, where they are checked for broken tips and chipped ends. Any damaged crayons are sent back to the mixing vat. After all, who wants broken crayons in a brand-new box?

The new crayons are sent to a labeling machine, where they are wrapped in papers telling their color and brand name. The newly labeled crayons are stored by color until they are ready to be packaged.

A conveyor belt takes the crayons to their last stop in the factory: machines that sort them into narrow cardboard boxes called sleeves and then into the crayon boxes. The finished boxes are packed and sent around the world, ready to color millions of imaginations.

Crayons have come a long way from the original eight colors. Now, over one hundred years later, you have more than 120 colors to choose from, as well as special crayons that glow in the dark, sparkle, and smell like flowers. You can create with zany colors like macaroni and cheese, razzmatazz, tickle me pink, and banana mania. With so many to choose from, which is your favorite?

At Binney and Smith, the maker of Crayola Crayons, about 12 million crayons are made each day. That's about three billion each year, or enough to circle the earth six times. If you take all the Crayola Crayons bought in one year and melt them into one huge crayon, the crayon would be 35 feet wide and 100 feet taller than the Statue of Liberty!

Most kids ages two to eight spend about 28 minutes a day coloring, and the average kid uses up 730 crayons by his or her tenth birthday.

22. Explain the main steps in making crayons. Use information from the article to support your answer.

Scoring Guide

| Score | Description |
|-------|---|
| 4 | Response provides a thorough explanation of the main steps in making crayons. Explanation is developed and includes relevant information from the article. |
| 3 | Response provides an explanation of the main steps in making crayons. Explanation lacks some development and/or relevant information from the article. |
| 2 | Response provides a partial explanation of the main steps in making crayons. Explanation is limited or lacks development and relevant details from the article. |
| 1 | Response is vague/minimal. |
| 0 | Response is totally incorrect or irrelevant. |
| Blank | No response. |

Scoring Notes

Main steps in making crayons:

- Step 1: making the pigment (possible details include 3 basic colors, the filter press, baking cakes, etc.)
- Step 2: mixing the pigment with the wax (possible details include liquid wax, mixing vats)
- Step 3: molding the crayons (possible details include colored wax going into molds, wax being cooled by water, etc.)
- Step 4: inspecting the crayons (details include removing damaged crayons)
- Step 5: labeling the crayons by color and brand name (details could include storage of crayons)
- Step 6: packaging

Note: A 4-point response need not contain information about making pigment. However, do not penalize student for including this information. Also, a 4-point response should contain most of the steps listed above.

The steps to make crayons are: 1.) You have to get pigment and wax. 2.) Red, yellow, and blue pigments are made with water and chemicals at a place called a color mill. 3.) Colored cakes are cooked in a kiln. 4.) They are then sent to a pulverizing machine that breaks it into fine powder. 5.) They are put into bags and sent to the crayon factory. 6.) Hot, clear liquid wax waits in a tower 26 feet high. 7.) The wax is pumped through large pipes into mixing vats. 8.) Pigments are added to the wax in the mixing vats to color it. 9.) The wax is poured into mold with thousands of crayon-shaped holes. 10.) The wax is cooled by water passed through the molds, checked for broken pieces, are labeled and wrapped and are packed to be sent around the world.

Thorough explanation of the main steps in making crayons with relevant information from the article.

Crayons are made of pigment and wax called paraffin. Each color is passed through a filter press, like an apple press at a cider mill squeezes the color through the molds. It takes four to seven minutes for the wax to harden. The extra wax on the top of the molds is scraped off and placed back into the mixing vat to be melted again and make more crayons. Rods inside of the holes pop the crayons out into inspection bins where they are checked for broken tips and chipped ends crayons are sent back to the mixing vat. The new crayons are sent to a labeling machine where they are wrapped in papers telling their crayon color and brand name. The newly labeled crayons are stored by color until they are ready to be packaged a conveyor belt takes the crayons to the last stop in a factory. Machines that sort them into narrow cardboard boxes called sleeves.

Thorough explanation of the main steps in making crayons with relevant information from the article.

Score Point 3

Sample 1

If you want to make crayons, first you pass crayons through a filter express, and squeezes out the extra water. Then it looks like a small cake, and they are baked in special ovens called kilns for up to three to four days, once they are dry they go to a pulverizing machine which breaks them up to fine powder. Next they are shipped to a crayon factory which pours ~~wax~~ wax. The wax is cooled by cold water, and it takes about 4 to 7 minutes to harden. Last they are put into cardboard boxes

Explanation of some of the main steps in making crayons but lacks some relevant information from the article.

Score Point 3

Sample 2

① Crayons are made out of pigment and wax, and put through a color mill. ② Then they pass through a filter press. ③ Then they are baked in ovens for 3 or 4 days and then are sent to a pulverizing machine. ④ Wax is then pumped into a mixing vat. Pigments are then added. ⑤ Next the wax is poured into crayon shaped holes. ⑥ Last they are sent to a labeling machine and then put in boxes.

Explanation of some of the main steps in making crayons but lacks some relevant information from the article.

Score Point 2

Sample 1

Pigment, is red, yellow blue. Pigment are made with water and chemicals at a place called a color mill. These three colors are mixed together to make lots of different colors, such as orange pink and green. Each color is passed through a filter press which like an apple press at a cider mill squeezes the color solution to get out the extra water.

Partial explanation of the main steps in making crayons but is limited and/or lacks development.

Score Point 2

Sample 2

Paraffin and pigment is mixed into the wax. Then, the wax is poured into molds. Next, the crayons are inspected. ~~Then,~~ the crayons are sent to a machine where the labels are put on and are put in to boxes. Finally, they are sent all over the world.

Partial explanation of the main steps in making crayons but is limited and/or lacks development.

Score Point 1

Sample 1

The main step in making crayons is to mix the
wax and pigments mold them and look
them

Minimal/vague response about making crayons.

Score Point 1

Sample 2

The main steps in the artical is to make Crayons.
first they go in a place where they make
paraffin. then they go to a color mill
where they get there color. That is
what the main steps are.

Minimal response about making crayons.

Score Point 0

Sample 1

The box in 1903 only
had eight crayons in
it but now it has 40
in them.

Irrelevant response about crayons.

Score Point 0

Sample 2

They tell about making crayons and when
they were made how people colored with
crayons and what color they are and there is
a lot of different colors and it was a good book

Irrelevant response about crayons.

Reading

Session 3

This story is from a book of West African stories titled Anansi, the Spider Man. Read the story and then answer the questions that follow.

Anansi and Turtle and Pigeon

Turtle once lived next door to Pigeon, and across the road was Anansi's house. Sometimes Turtle and Anansi would stand together and watch Pigeon flying from one housetop to another, from one tree to another.

"I wish I could fly with Pigeon," said Turtle.

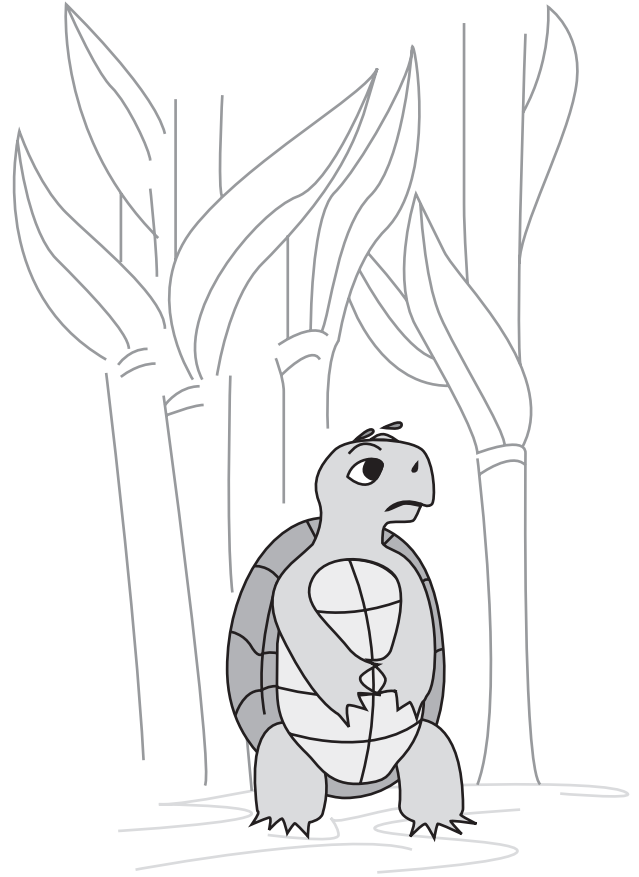
"I wish so, too," said Anansi.

At last one day they went to Pigeon and asked him to teach them to fly. Pigeon took them to the oldest pigeon of all. He looked as wise as an owl and said that they could learn. Then each pigeon pulled out a feather and glued it to Turtle's back until he looked like a pincushion, all full of feathers. Anansi, they said, would have to let Turtle try first. Next they took hold of Turtle and flew up into the air.

Soon they reached Tiger's cornfield. Every day the pigeons went there and took Tiger's corn. When they got there they took their feathers away from Turtle, gave him a large bag, and told him to pick up the grains of corn from the ground. So they all picked up corn; and Turtle picked up corn, too.

Then they heard a noise.

The pigeons all stood still and lifted up their heads. A second or two later the oldest pigeon flapped his wings and rose up, and all the other pigeons flapped their wings and flew away, leaving Turtle all by himself in the field of corn. Anansi saw the pigeons return home, but there was no Turtle with them. Turtle was



left in the middle of the field, and there the watchman found him with the bag of corn.

"So it's you, Turtle, is it? You are the thief that comes and steals Tiger's corn?"

"No," cried Turtle, "no, my sweet watchman. Ask Anansi if you doubt me. It is the pigeons that come stealing the corn."

"What are you doing here, then?" asked the watchman.

"Oh, my sweet watchman," cried Turtle,

“ask Anansi if you doubt me. I told the pigeons that I wanted to fly, and they lent me feathers and I came with them; but I am not stealing the corn.”

“Well,” said the watchman, “I never yet saw a Turtle fly. You must come with me.” And he put Turtle in a pail of water and took him to Tiger’s house.

Now Turtle remembered what Anansi had once told him. Anansi once said: “Turtle, when you don’t know what to say and when you don’t know what to do—sing!” So Turtle began to sing. He sang so sweetly that the watchman began to dance, and he danced until he had spilled all the water out of the pail. Then Turtle called out, “If you let me walk I will sing so sweetly!”

But the watchman said no.

At last they came to Tiger’s house, and Tiger came out to see Turtle.

“Ah,” said Tiger, “call the cook!” Tiger told the cook how to stew Turtle for supper, and then he went off to invite his relations and friends to come to the meal.

Now the cook was mixing all the onions and pimento together, and Turtle remembered

what Anansi had said, and Turtle began to sing. He sang so sweetly that the cook began to dance.

Then Turtle said, “My sweet cook, if you will only put me on the ground outside I will sing so sweetly!”

The cook put Turtle outside, and he sang more sweetly than ever; and the cook danced all the time.

Then Turtle said: “Oh, my sweet cook, if you will take me to the river and put just the tip of my tail in the water I will sing more sweetly than ever.”

The cook took Turtle to the river and put just the tip of his tail in the water, and Turtle sang more sweetly than ever, and the cook danced and danced.

But soon she heard no singing. She looked down.

There was Turtle at the bottom of the river! And Turtle waved his hand and swam away.

And the cook dared not go back to Tiger’s house.

That is why, from that day to this, no one cooks Tiger’s food for him.

67. Explain how Anansi is important in this story. Use information from the story to support your answer.

Scoring Guide

| Score | Description |
|-------|---|
| 4 | Response provides a thorough explanation of how Anansi is important in this story. Explanation is developed and includes relevant information from the story as support. |
| 3 | Response provides an explanation of how Anansi is important in this story. Explanation lacks some development and/or relevant information from the story as support. |
| 2 | Response provides a partial explanation of how Anansi is important in this story. Explanation is limited or lacks development and relevant details from the story as support. |
| 1 | Response is vague/minimal. |
| 0 | Response is totally incorrect or irrelevant. |
| Blank | No response. |

Scoring Notes

- Anansi is Turtle’s friend and advisor.
- Turtle refers to or thinks of Anansi as the authority or the source of wisdom.
- Turtle tells the watchman to check with Anansi to prove that Turtle is not stealing the corn.
- When Turtle sings sweetly, he is following Anansi’s advice about what to do when he doesn’t know what to say or do. This allows him to survive long enough to come up with his own plan of getting to the river.

Anansi is important in the story because he told turtle to sing whenever he felt scared or frightened, so that's what turtle did and when watchman found him and blamed him for stealing corn from tigers cornfield, turtle started to sing a song, and watchman started to dance. Then turtle said, "If you let me go I'll sing even more sweetly." But watchman said, "No." So watchman took turtle to tiger and told tiger that turtle was the thief. Then tiger told cook to cook turtle and make turtle-soup for dinner. Then tiger invited his family member and all his friends to come over and eat. So while cook diced all the onions and pimento into the soup, turtle began to sing again, and cook started to dance. Then turtle said, "If you dip just the tip of my tail into the river, then I'll sing even more sweetly." So cook did and turtle got away.

Thorough explanation (if mostly retelling) using many details from the story about how Anansi is important.

Anansi is important in the story because Anansi and Turtle are friends. When Turtle is captured and in the pail of water he remembers what Anansi told him once. Anansi had said, "Turtle, when you don't know what to say and when you don't know what to do - sing!" So Turtle started singing and the watchman started to dance. That didn't get him out of trouble though. Finally he persuaded the cook by singing again to let him put the tip of his tail in the pail water. The next then the cook knew was that turtle was gone. That's why Anansi is important in the story.

Thorough explanation using many details from the story about how Anansi is important.

Score Point 3

Sample 1

Anansi helped Turtle live. Anansi was not there in the corn field with him but he remembered what she said. Turtle remembered that Anansi once said "when you don't know what to say sing." When Turtle remembered that he sang and tricked the cook into taking him to the river then he would sing better for her but he swam away. That is how Anansi is important to the story.

General explanation which lacks some development/details from the story about how Anansi is important; however, it is directly focused on the question.

Score Point 3

Sample 2

Anansi is very important in this story.

Anansi helped turtle a couple of times in this story. Anansi told the turtle to "when you don't know what to say and when you don't know what to do you sing!" when he was left in a corn field ~~where~~ the pigeons left him and the watchman came so he sang. The turtle did the same thing with the rock and left in the bottom of the river.

General explanation, lacks some development/details from the story about how Anansi is important.

Score Point 2

Sample 1

Anansi is important because he teaches Turtle how to sing a song when he does not know. He is a good friend and stays with Turtle when turtle needs or wants help at something.

Partial explanation limited in development/relevant detail about how Anansi is important.

Score Point 2

Sample 2

Anansi is important in this story. I think this because Anansi told him important stuff so the turtle would know how to escape. Turtle never would have escaped without Anansi telling him what to do if he wanted to escape. Therefore that's why I think Anansi is special in this story.

Partial explanation limited in development/relevant details about how Anansi is important.

Score Point 1

Sample 1

Anansi is important because she tells
turtle when you cant do stuf then sing

Minimal response about Anansi.

Score Point 1

Sample 2

Anansi is important because,
he gave turtle great information
to help turtle escape.

Minimal response about Anansi.

Score Point 0

Sample 1

Anansi shows that you should not trust everything people say.

Irrelevant

Score Point 0

Sample 2

He is lost and turtle is saving him.
He is like scared. Turtle is having a hard time finding him. He is with a cook and turtle is trying to find him.

Irrelevant/incorrect

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